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| 10/085,585 | 03/01/2002 | Takuma Saito | H07-137800M/NHK | 8975 |
| 21254 | 7590 | 10/28/2004 | EXAMINER | |
| MCGINN & GIBB, PLLC 8321 OLD COURTHOUSE ROAD SUITE 200 VIENNA, VA 22182-3817 | | | LOPEZ, MICHELLE | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3721 | |

DATE MAILED: 10/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/085,585

Applicant(s)

SAITO ET AL.

Examiner

Michelle Lopez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13, 15 and 17-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13, 15 and 17-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

1. This action is in response to the amendment filed on June 23, 2004.
2. Claim 16 has been canceled.
3. New claims 24-33 have been added.

Allowable Subject Matter

4. The indicated allowability of claims is withdrawn in view of the newly discovered reference(s) to Morita'470. Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-13, 15, and 17-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morita (US 4,779,470) in view of Kawasaki (US 5,601,149).

Morita'470 discloses a powered drive source "M"; a speed reduction mechanism portion which includes a fixed gear "27" which transmits a rotational power from the motor "M"; an impact damping mechanism for damping an impact on said speed reduction mechanism portion in a direction of rotation of said fixed gear "27" (see Fig. 6); a projection "59,65" formed on said fixed gear; an impact damping member "53,54" provided adjacent to said projection and an fixed

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gear support jig “30” mounted in a housing to holds the fixed gear “27”; a projection “52,66” formed on the fixed gear support jig “30”; an impact damping member “53” disposed in a hole “58” defined in the support jig “30”, wherein the hole “58” engages the projection “59”.

With regards to claims 1,13, 15, 17, 20-21 Morita’470 does not disclose an impact tool with a striking mechanism portion for converting the rotational power of said speed reduction mechanism portion into a striking force and an end tool. However, Kawasaki’149 teaches an impact tool powered by a driving source with a motor “M”, a speed reduction mechanism “21” with a fixed gear, and a striking mechanism portion with an end tool “16” (see Fig. 2) for the purpose of converting and transmitting a rotational force from a driven source “M” into a striking force, outputting the striking force and rotation force through the striking mechanism via the tool “16”. In view of Kawasaki’149, it would have been obvious to one having ordinary skills in the art to have provided Morita’s invention with a striking mechanism portion having an end tool in order to convert and transmit a rotational force from a driven source into a striking force, outputting the striking force and rotation force through the striking mechanism via the tool “16”.

With regards to claim 4, the projection “59” on the fixed gear “27” is formed on a side surface of the fixed gear “27”.

With regards to claims 5 and 7, the damping member “53,54” is between the fixed gear “27” and fixed gear support jig “30”, and is provided between a bearing “24” and a housing “H”.

With regards to claim 6, the projection “65” on the fixed gear “27” and the projections “66” on the fixed gear support jig “30” are formed on an outer surface of the fixed gear “27” and the fixed gear support jig “30” respectively (see col. 7; lines 30-34).

With regards to claims 9 and 11, the projections “59,52” on the fixed gear and the fixed gear support jig “30” are formed on a side surface of the fixed gear “27” and fixed gear support jig “30” respectively (see col. 3; lines 22-23).

With regards to claims 10 and 12, the impact damping member “54” is between the fixed gear support jig “30” and the housing “H”, and is provided between a bearing “24” of the speed reduction mechanism and the housing “H”.

With regards to claims 24, 25, and 26 a pair of impact damping member “54” are formed in a pair of holes “58” disposed on the fixed gear support jig “30” (see Fig. 7).

With regards to claim 27 and 33, the impact damping members “54” have a pair of projections “59” formed on the fixed gear disposed between the pair of damping members “54” (see Fig. 7).

With regards to claim 28, Morita’470 does not disclose a striking mechanism that converts the rotational movement of the output shaft “23” into a striking force. However, Kawasaki’149 teaches an impact tool having a striking mechanism connected to an output shaft, as shown in Figs. 2 and 3, for the purpose of converting a rotational force from a driven source “M” into a striking force, outputting the striking force and rotation force through a striking mechanism via a tool “16”. In view of Kawasaki’149, it would have been obvious to one having ordinary skills in the art to have provided Morita’s invention with a striking mechanism portion having an end tool in order to convert and transmit a rotational force from a driven source into a striking force, outputting the striking force and rotation force through the striking mechanism via a tool.

With regards to claim 29, Morita'470 discloses a mechanical portion via "23" for transmitting the rotational power of the speed reduction mechanism portion. Morita'470 does not disclose an end tool. However, Kawasaki'149 teaches an impact tool with a speed reduction mechanism connected to a mechanical portion "1", and an end tool "16" for the purpose of operationally connecting the mechanical portion "1" to the end tool "16" to transmit a rotational power of the speed reduction mechanism portion "21" through to the end tool "16". In view of Kawasaki'149, it would have been obvious to one having ordinary skills in the art to have provided Morita's invention having an impact tool with a speed reduction mechanism connected to a mechanical portion, and an end tool in order to operationally connect the mechanical portion to the end tool, transmitting a rotational power of the speed reduction mechanism portion "21" through to the end tool.

Also, Morita'470 does not disclose a handle connected to a main body. However, Kawasaki'149 teaches a handle connected to a main body (see Fig. 1) for the purpose of providing a speed reduction mechanism within a portable impact tool. In view of Kawasaki'149, it would have been obvious to one having ordinary skills in the art to have provided Morita's speed reduction mechanism with a handle connected to a main body in order to provide a portable impact tool having a speed reduction mechanism.

Also, it is deemed that the fixed gear "27" has a gear in an inner periphery.

Also, Morita'470 does not disclose that a projection "59" extends toward the motor from a side of the fixed gear. However, it would have been obvious to one having ordinary skills in the art at the time the invention was made to have provided Morita's projection "59" extending toward the motor, since it has been held that rearranging parts of an invention involves only

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routine skill in the art, and it appears that the invention would perform equally with projection “59” formed on the outer surface of the fixed gear “27” inserted between the impact damping members for the purpose of damping an impact on the speed reduction mechanism portion in a direction of rotation of the fixed gear “27”.

With regards to claim 32, an outer periphery of the support jig “30” is in contact with an inner peripheral surface of the main body at the vicinity of “C” (see Fig. 1) and wherein a rotation stoppage “31” projection extends toward the motor.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Barth'179, Kern'102, Stegman'928, Kern'448, Gaydek'477, and Ziegler'410 are cited to show related inventions.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michelle Lopez whose telephone number is 703-305-8205. The examiner can normally be reached on Monday - Thursday: 8:00 am - 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rinaldi Rada can be reached on 703-308-2187. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



JOHN SIPOS
PRIMARY EXAMINER